



Nebraska Public Power District

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LQA8100215

June 30, 1981

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Post TMI-Requirements/NUREG 0737
Cooper Nuclear Station
NRC Docket No. 50-298, DPR-46



- Reference: 1) Letter from D. G. Eisenhut to All Licensees
Dated October 31, 1980
- 2) Letter from J. M. Pilant to D. G. Eisenhut
Dated December 30, 1980, "Post TMI-
Requirements/Action Plan"
- 3) Letter from J. M. Pilant to D. G. Eisenhut
Dated June 9, 1981, "Emergency Response
Facilities"
- 4) Letter from J. M. Pilant to H. R. Denton
Dated January 2, 1981, "Emergency
Preparedness Plans"

Dear Mr. Eisenhut:

Reference 1 required Nebraska Public Power District to complete or
address certain TMI Action Plan Requirements by July 1, 1981. Attached
are discussions of the applicable items.

If additional clarification on any item is necessary, please contact
me.

Sincerely,

Jay M. Pilant
Director of Licensing
and Quality Assurance

JMP:JDW:cmk

Attachment

bcc: NRC Distribution
Emergency Plan Distribution
L. P. Schakat
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L. P. Kohles
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NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
NUREG 0737 IMPLEMENTATION
EFFORTS REQUIRED AS OF JULY 1, 1981

II.B.1 - Reactor Coolant System Vents:

The District concurs with the BWR Owner's Group position that adequate design features presently exist for the BWR at CNS. No additional design changes are planned.

II.D.1 - Performance Testing of Reactor Relief and Safety Valves:

The BWR Owner's Group will transmit the preliminary BWR S/RV test program results by letter dated July 1, 1981 from T. J. Dente to D. G. Eisenhower. The results which demonstrate the operational adequacy of the Model 7567F 2-stage Target-Rock valves at CNS will be provided as preliminary data sheets. The District's preliminary review of the test program results confirms that the test program demonstrates the valves satisfy the acceptance criteria for operability. The test conditions were defined in a letter from D. B. Waters to R. H. Vollmer dated September 17, 1980 and Owner's Group responses to NRC questions were transmitted in a letter from D. B. Waters to D. G. Eisenhower dated March 31, 1981.

II.E.4.1 - Dedicated Hydrogen Penetrations:

The CNS licensing basis does not include hydrogen recombiners or penetrations; however, at the request of the NRC the District has implemented a design change to allow containment venting for combustible gas control without opening the large primary containment purge valves.

II.E.4.2 - Containment Isolation Dependability:

Position 7 required that the containment purge and vent isolation valves close on a high radiation signal. The design of the CNS containment system is such that both redundant (motor and air operated) drywell and suppression chamber purge inlet and outlet valves close on a reactor building exhaust plenum high radiation signal. Additional details concerning these radiation monitors and valve closure were provided in letters from J. M. Pilant to T. A. Ippolito on December 18, 1979 and February 8, 1980. Additionally, the District concurs with the BWR Owner's Group evaluation of this item which was transmitted by letter from T. J. Dente (BWROG) to D. G. Eisenhower dated June 29, 1981. Based upon the existing monitoring capabilities and dose considerations additional modifications are not considered necessary.

II.F.1 - Accident Monitoring-Noble Gas Monitoring and Iodine/Particulate Sampling:

The appropriate sampling capabilities are required to be installed by January 1, 1982, and the District stated in Reference 2 that it was anticipated that our installation of these two items will not deviate

from the NRC position stated in NUREG 0737. Although the NRC requires no response to this item at this time, the District feels constrained to inform the staff that after competitively bidding the instrumentation and finding all bids non-responsive according to Nebraska State Law, additional negotiation must take place to procure the instruments. This process may result in hardware delivery such that the January 1, 1982 installation date may not be met. In any event, it is contemplated that this system will be installed and operable by the end of the spring 1982 outage.

II.F.1 - Accident Monitoring-Containment Hydrogen Instrumentation:

This item requires measurement capability over the range of 0 to 10% hydrogen concentration by January 1, 1982. The system presently installed at CNS meets all of the NUREG 0737 requirements except that one hydrogen analyzer has a range of 0-5% while the other is 0-20%. The 0-5% range instrument was installed to meet the accuracy/sensitivity requirements associated with actuation of the CNS ACAD system. This ACAD system is installed but the NRC has not as yet licensed the system for operation. For this reason, the District does not intend to alter the present system design and hydrogen monitoring capabilities.

II.F.1 - Accident Monitoring-Containment High-Range Radiation Monitor:

NUREG 0737 required that the District submit deviations, if any, from the requirements at this time. It is anticipated that the required modification will be completed by January 1, 1982 contingent upon receipt of materials. Details of the final design, which meets the NRC requirements, are available for NRC review if required.

II.K.3.13 - Separation of HPCI and RCIC System Initiation Levels:

The analysis regarding RCIC automatic reset, which was submitted to the NRC by General Electric, has been reviewed by the District, and modifications have been completed which implement the NUREG 0737 recommendations.

II.K.3.15 - Modification of Break Detection to Prevent Spurious Isolation of HPCI and RCIC Systems:

The necessary design change has been completed to eliminate any spurious isolations during a normal system start transient.

II.K.3.24 - Space Cooling for HPCI and RCIC:

The HPCI and RCIC room coolers receive power from the emergency buses and can, therefore, operate as designed during a loss of offsite power. The capacity of the coolers are such that the systems can operate for greater than two hours.

II.K.3.25 - Effect of Loss of AC Power on Recirculation Pump Seals:

A copy of the BWR Owner's Group evaluation of this event has been provided directly to the NRC by the BWR Owner's Group. The District concurs with the conclusions of this evaluation.

Two systems provide cooling to the recirculation pump seal. If either one of these systems is operating, recirculation pump operation without the second cooling system may continue with no harm to the seals. If both seal cooling systems are inoperable, the pump seals will overheat approximately 7 minutes after the total loss of cooling and seal deterioration will begin.

Based on fluid loss analysis of extremely degraded seals, the leakage is less than 70 gallons per minute. This amount of leakage will not lead to a safety concern but may degrade the seals such that they would have to be repaired prior to resuming operation. Consequently, no change in design is necessary or proposed.

II.K.3.27 - Common Reference Level for Reactor Vessel Level Instrumentation:

The modifications committed to in our response of February 27, 1981 have been completed so that all level instruments are referenced to the same point.

III.A.2 - Emergency Preparedness-Meteorological Program Description:

A functional description of the upgraded programs and schedule for installation and full operational capability is required by NUREG 0737 to be provided at this time. Attachment 2 is a preliminary development plan for the meteorological monitoring system at CNS which provides the functional description. This preliminary plan is presently undergoing review and some of the information such as instrument vendors, etc., may be subject to change.

In Reference 3 the District provided a description and schedule for the integrated computer change-out program which is required to meet other aspects of NUREG 0737. Since various functions of the meteorological monitoring systems will be performed by the new process computer at CNS, the schedule for installation and full operational capability of the met. system are best defined by the schedules provided in Reference 3.

III.A.2 - Emergency Preparedness - Early Warning System:

In Reference 4 the District submitted a definition of the Early Warning System (EWS) which was being procured in order to meet the July 1, 1981 implementation date, and NRC concurrence with the plan was requested. The following status information pertains to nine (9) fixed sirens, thirty-two (32) volunteer firemen using mobile sirens, and six (6) sheriffs' cruisers which comprise the EWS.

The total of nine fixed sirens have been installed. Of the nine, two have electric power at this time; however, one siren, at Langdon, Missouri, must be moved due to an error in location and one siren at Peru, Nebraska, may require additional work pending local authorities deciding if that siren must be moved. It is anticipated that all sirens will be operational by mid-July. All of the mobile siren equipment has been received and will be distributed to local fire departments during July. The tone encoders which control the activation of the fixed sirens have been received.

Primary control of the fixed sirens is at the Sheriff's Dispatch Office in Rock Port, Missouri, and Auburn, Nebraska. This primary control is for incidents connected to CNS. Control of mobile siren equipment will rest with the volunteer fire departments in Rock Port and Watson, Missouri; Peru, Brownville, Nemaha, and Shubert, Nebraska. This equipment will be operated by the volunteer firemen. Six of the fixed sirens are designed with a third fire signal to be used by the local government for local emergencies. These towns will also have encoders to control their siren. Local emergencies include fire and tornados.

During the installation period of the fixed sirens, and until all mobile equipment is distributed, the local Sheriff's Departments and Fire Departments will utilize existing mobile equipment as warning devices as defined in the various state and local plans submitted in Reference 4. Present plans also include use of the existing phone systems.

The siren system will be ready for testing approximately July 31, 1981 pending no further delays by the Peru authorities. All of the mobile equipment should also be received and distributed by this date.